GSD Series DC Drives Accessories

GSDA Accessories for GSD Series DC Drives – Selection & Specifications

GSDA Accessories for GSD Series DC Drives			
Model	***Price***	***Description***	***For Use With***
GSDA-5K	$14.00	Speed Potentiometer Kit. 5kΩ accessory/replacement. Includes adjustment knob and 0-100% speed dial.	GSD - all
GSDA-ACCDEC-4	$12.00	Independent Accel/Decel Adjustment Card. Field installable.	GSD4 - all
GSDA-AI-A	$35.00	Isolated Analog Current Signal Input Card. Range: 4–20mA. Field installable for open-frame drives as shown.	GSD4-24x-xC (open-frame) GSD5-240-10C (open-frame) GSD6 (open-frame)
GSDA-AI-V4	$80.00	Isolated Analog Voltage Signal Input Card. Range: 0–10V or 0–250V. Field installable for open-frame drives as shown.	GSD4-240-xC (240V open-frame)
GSDA-AI-V5	$80.00	Isolated Analog Voltage Signal Input Card. Range: 0–10V or 0–250V. Field installable for open-frame drives as shown.	GSD5-240-10C (open-frame)
GSDA-DP	215.00	Digital Potentiometer. 120–240 VAC input. Programmable. Outputs any unipolar or bipolar voltage range (based on input voltage) up to 24VDC (±12V, ±10V, 0–5V, 0–24V, etc.). NEMA 4X enclosure fits 1/8 DIN cutout. Replaces analog potentiometers where vibration, repeatability, or precision is a concern.	GSD1 - all GSD4 - all GSD5 - all GSD6 - all GSD7 - all
GSDA-MREV	$75.00	Manual Reverse Switch. 4PDT rated at 10A. Allows reversing by switching DC motor armature leads. Center-blocking prevents motor leads from reversing when motor is still turning in the previous direction.	GSD4 - all GSD5-240-10C (open-frame)
GSDA-HTSNK-4	$25.00	Heatsink. Increases the drive's output current rating.	GSD4-24x-xC (open-frame)
NOTE: All GSDA Accessories are RoHS compliant.			

GSDA-5K

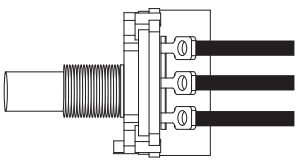
For use with all GSD series DC drives

The GSDA-5K is a replacement potentiometer kit that can be used with IronHorse GSD series DC drives to control the speed of a DC motor.
(All GSD series DC drives include a speed potentiometer.)

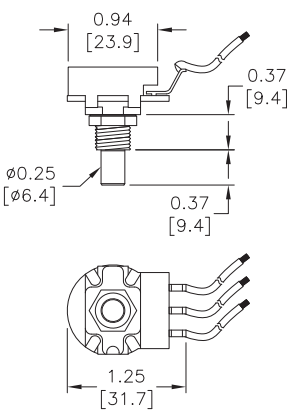
The kit includes:

- (1) 5kΩ potentiometer
- (3) pigtail wiring leads (8-1/2 in; 20 AWG)
- (1) adjustment knob
- (1) 0–100% dial
- (1) mounting nut and lock washer

Wiring Connections



Dimensions (in [mm])



GSD Series DC Drives Accessories

GSDA-ACCDEC-4

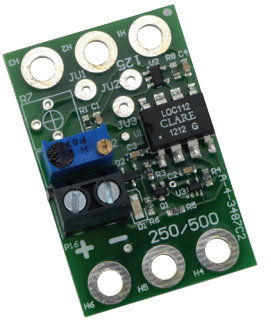
For use with all GSD4 DC drives

The GSDA-ACCDEC-4 option card overrides the fixed accel ramp built into the GSD4 drive, providing independently adjustable linear acceleration and deceleration from 0.5 to 8.0 seconds. Adjustments are made via two separate trim pots.

This option card plugs into the expansion connector on the GSD4 main circuit board.

GSDA-ACCDEC-4 installation and wiring information is included in the GSD4 DC Drives User Manual.

GSDA-AI-A

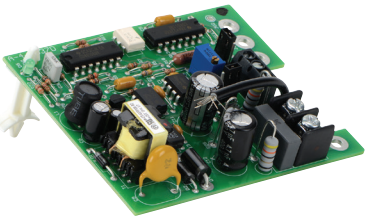


For use with DC drives: GSD4-24x-xC, GSD5-240-10C, GSD6-all (open-frame)

This option card is a 4–20 mA isolated analog current signal card that can replace the speed pot as a speed input signal to certain GSD series drives. The 4–20 mA signal input can be either grounded or ungrounded. The board sets on spacers screwed to the potentiometer HI, Wiper, and LO terminals on the main GSD drive board using screws (included).

GSDA-AI-A installation and wiring information is included in the GSDA-AI-A DC Drives Accessory Data Sheet.

GSDA-AI-V4

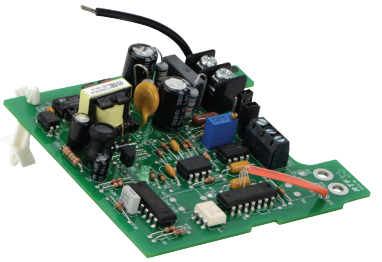


For use with GSD4-240-xC (120–240V open-frame) DC drives

This option card allows for the use of either a grounded or non-grounded remote DC signal such as 0–5 VDC through 0–250 VDC, 4–20mA current, or a remote speed pot. The DC input signal type can be selected for voltage (Vin) or current (4–20mA), and there is a GAIN trim pot to set full linear output in reference to the input signal range. The output of this remote signal isolation board is a linear signal that is proportional to the remote input signal being supplied.

GSDA-AI-V4 installation and wiring information is included in the GSD4 DC Drives User Manual.

GSDA-AI-V5



For use with GSD5-240-10C (open-frame) DC drives

This option card allows for the use of either a grounded or non-grounded remote DC signal such as 0–5 VDC through 0–250 VDC, 4–20mA, or a remote speed potentiometer. The DC input signal type can be selected for voltage (Vin) or current (4–20mA), and there is a Hi/Lo range selection to select the voltage ranges. The GAIN trim pot is used to set full linear output in reference to the input signal range. The output of this remote signal isolation board is a linear signal that is proportional to the remote input signal being supplied.

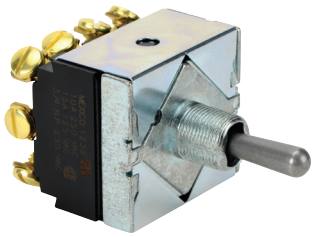
GSDA-AI-V5 installation and wiring information is included in the GSD5 DC Drives User Manual.

GSD Series DC Drives Accessories

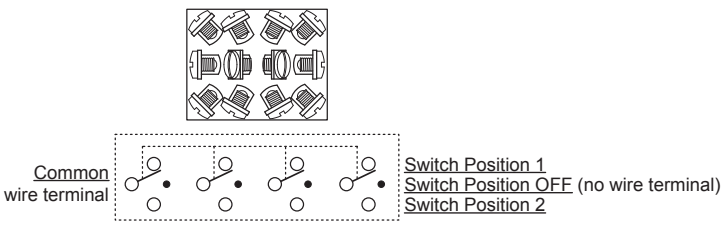
GSDA-MREV

For use with DC drives: GSD3 - all, GSD4 - all, GSD5-240-10C (open-frame)

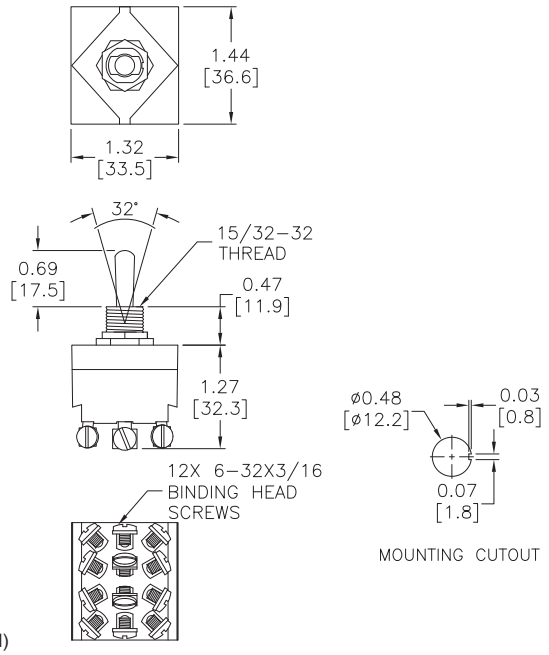
The GSDA-MREV Manual Reversing Switch is a 4PDT 10A-rated center-blocked manual switch that can be used with IronHorse GSD series DC drives to manually reverse the direction of a DC motor. When switched between the Forward and Reverse positions, the blocked center position causes a delay which protects the DC drive from any voltage that may be on the motor armature terminals. The center position is OFF/NEUTRAL, and is not connected to a wiring terminal.



Use the GSDA-MREV switch to manually reverse a DC motor without damaging the drive.



Dimensions (in [mm])



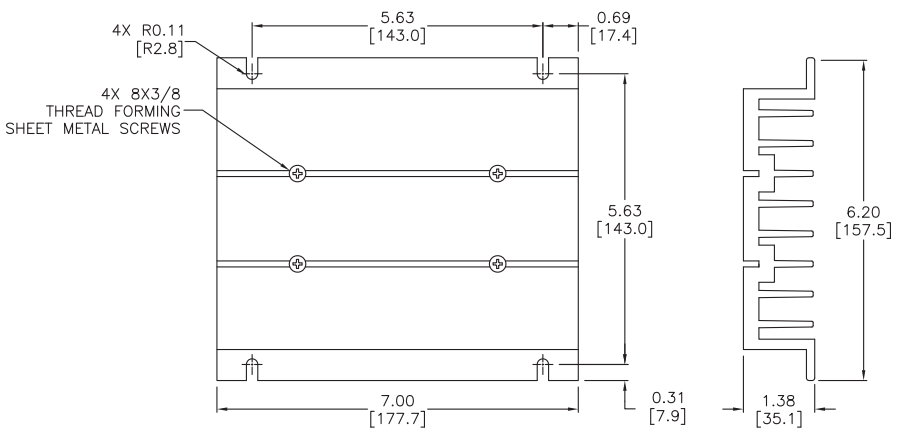
GSDA-HTSNK-4

For use with GSD4-xxx-xC (open-frame) DC drives

Optional heatsink for open-frame GSD4-xxx-1C and GSD4-xxx-5C DC drives only.

Increases the output current capability of GSD4-240-5C drives to 10A (non-UL applications only).

Dimensions (in [mm])



GSD Series DC Drives Accessories

GSDA-DP

For use with DC drives: GSD1 - all, GSD3-24A-xxx (12–24V), GSD4 - all, GSD5 - all, GSD6 - all, GSD7 - all

The GSDA-DP digital potentiometer is a compact, microprocessor-based unit capable of being either field or factory configured for a number of industrial user interface / control signal needs. The GSDA-DP allows the user to adjust the displayed value via the front-panel push buttons. As the displayed value is raised or lowered, the output signal from the GSDA-DP follows proportionally according to the unit's configuration. These units support both unipolar and bipolar output and are capable of automatically inverting, scaling, and offsetting the output as needed. The GSDA-DP series is ideal for volume OEM applications requiring specialized inputs and outputs.

The GSDA-DP durable 1/8 DIN aluminum housings can be easily mounted in a panel or control cabinet.

Standard Features

- Microprocessor-based design combines the ultimate in responsiveness and accuracy in one package
- Non-volatile memory stores adjustable parameters even when power has been removed
- Adjustable parameters include display range, output range, output polarity, alarm options, etc.
- Internal program-enable jumper selectively prevents tampering with unit's configuration
- Universal power supply accepts line voltages inputs from 85–265 VAC @ 50–60Hz without switches or jumpers. The unit automatically adjusts as needed.
- Transient voltage protection prolongs unit's life in harsh industrial environments
- Self-contained power supply for external sensor, limited to 5V @ 50mA
- 1/8 DIN durable aluminum housing for panel mounting
- Large 4-digit, 1/2" LED display
- G.E. Lexan membrane and gasket (which are included) meet NEMA 4X standards when used with NEMA 4X enclosures
- Wide operating ambient temperature range of -10 °C to 45 °C (14 °F to 113 °F)
- Multiple operating modes including:
  - Rate Mode* – Displays in rate and non-rate units such as rpm, gallons per second, and percent
  - Time Mode* – Displays in time units such as HH:MM, MM:SS, SS:TT, or other units
  - Rate and Time Modes operate inversely from each other

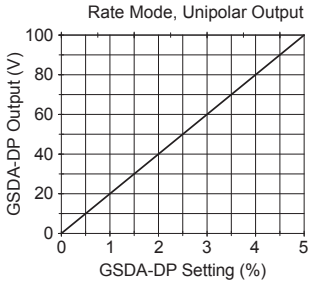
GSDA-DP – Specifications		
Electrical	*Line Input Voltage*	85–265 VAC
	Line Input Frequency	48–62 Hz
	Display Range	0.001 – 9999
	Units of Operation	User Programmable, any Unit
	Onboard Power Supply (externally accessible)	5V @ 50mA
	Pot Lo/Hi Supply VDC Range (external supply)	0–2 VDC through 0–24 VDC
	Pot Wiper VDC Range	Pot Lo +50mV through Pot Hi -50mV
	Pot Circuit Current Draw	2mA @ 12V
	Pot Circuit Isolation	>500 MΩ
	Isolated Alarm Relay Output Ratings	250VAC @ 5A; Form C
	Resolution of D-A Converter	10 bits
	Analog Output	Any unipolar or bipolar voltage range (based on input voltage) up to 24VDC
Mechanical	*Display Type*	LED, Red, 4-Digit, 1/2 in Height
	Housing Type (with supplied gasket in NEMA 4X panel)	1/8 DIN NEMA 4X
	Connector Style	12-position 5mm European Style
	Terminal Block Torque Setting	4.4 lb·in Max [0.5 N·m]
	Faceplate Material	Polycarbonate with GE Lexan Overlay
	Housing Material	Aluminum
	Weight	14.4 oz [408.22g]
Environmental	*Operating Temperature Range*	-10 °C to 45 °C [14 °F to 113 °F]
	Operating Humidity Range	95% non-condensing
Regulatory	*Agency Approvals*	RoHS

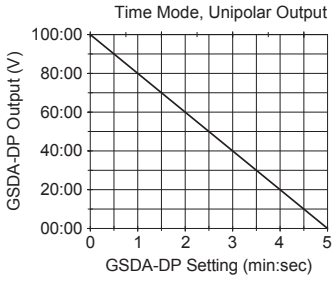
GSD Series DC Drives Accessories

GSDA-DP

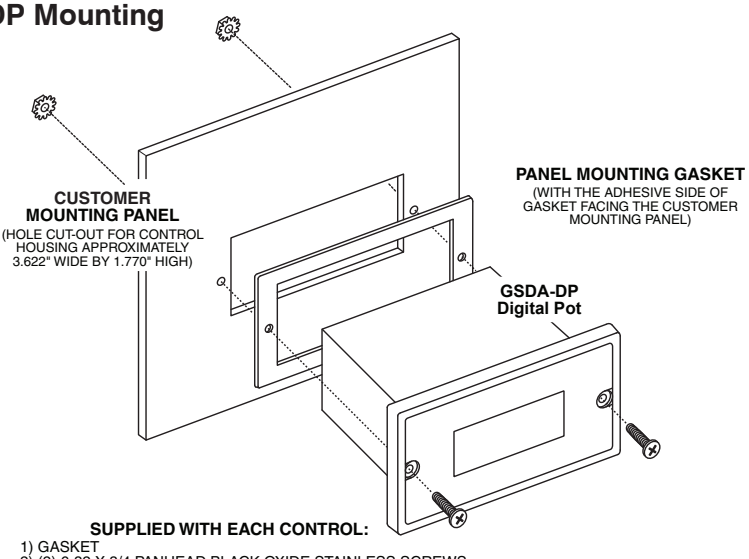
GSDA-DP Operation Modes

Rate and Time mode cycle times operate inversely from each other.





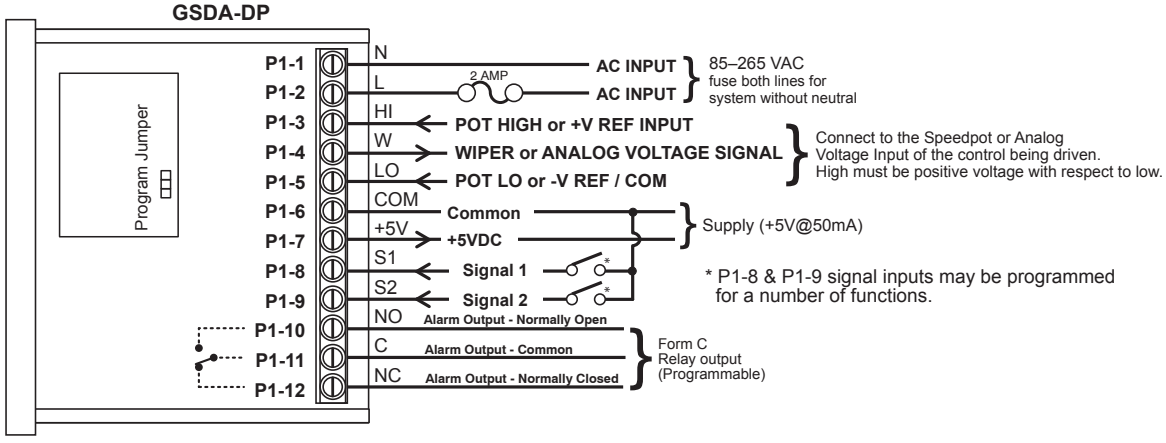
GSDA-DP Mounting



SUPPLIED WITH EACH CONTROL:

1) GASKET
2) (2) 6-32 X 3/4 PANHEAD BLACK OXIDE STAINLESS SCREWS
3) (2) #6 NUT WITH LOCKWASHER

GSDA-DP Wiring



GSDA-DP Dimensions (in [mm])